

Louis Dienes
MGH Boston

October 9, 1946.

Dear Dr. Dienes,

Please accept my thanks at the outset for the hospitality with which I was greeted upon my abrupt visit to your laboratory. The preparations were very impressive indeed.

One of our graduate students, a Mr. Carl Beam, is devoting his time to the securing of mutants of *Proteus*. Acting on your suggestion, chloral hydrate has been tried for the suppression of swarming, and appears to be quite satisfactory in concentrations of .001 % or less, without much inhibition of growth. I think we can anticipate fairly rapid progress now. We shall of course be interested to learn the results of your serological tests along the same lines,

A culture of *E. coli*, strain K-12 is being sent under separate cover. Since all mutants derived from this strain show genetic evidence of recombination, the structures in which this takes place should be present. The genetic data suggest that these structures may be present in a proportion of perhaps $1:10^6$ in cultures of 4-8 hours in liquid medium (nutrient broth will do; Yeast Beef Broth is probably better.) This low figure may not be entirely hopeless if the 'zygote' is morphologically distinctive. We appreciate very much your examination of this matter, however cursory. I need hardly suggest that 'large Bodies' may not be the only distinctive structure. Along these lines, has Dr. Smith been continuing bacteriological investigations?

Anticipating the opportunity to return your hospitality, I remain.

Sincerely yours,

Joshua Lederberg.